



ERPO1.004APC.TXT

SEQUENCE LISTING

<110> Watts, Colin

<120> USE OF INHIBITORS OF MAMMALIAN
ASPARAGINYL ENDOPEPTIDASE FOR THERAPY OF AUTOIMMUNE DISEASE

<130> ERPO1.004APC

<140> 09/646,950

<141> 2000-12-08

<150> WO99/48910

<151> 1999-03-26

<150> US60/086,966

<151> 1998-05-28

<150> GB9806442.1

<151> 1998-03-26

<160> 39

<170> FastSEQ for windows Version 4.0

<210> 1

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> peptide sequence which may be comprised in a
competitive inhibitor of AEP

<400> 1

Ala Glu Asn Lys

1

<210> 2

<211> 4

<212> PRT

<213> Artificial Sequence

<220>

<223> peptide sequence which may be comprised in a
competitive inhibitor of AEP

<400> 2

Lys Asn Asn Glu

1

<210> 3

<211> 295

<212> PRT

<213> Homo sapiens

<400> 3

Met His Arg Arg Arg Ser Arg Ser Cys Arg Glu Asp Gln Pro Val Met

ERPO1.004APC.TXT

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Asp Asp Gln Arg	Asp Leu Ile Ser	Asn Asn Glu Gln Leu	Pro Met Leu
Gly Arg Arg	Pro Gly Ala Pro	Glu Ser Lys Cys Ser	Arg Gly Ala Leu
Tyr Thr Gly Phe	Ser Ile Leu Val	Thr Leu Leu Leu	Ala Gly Gln Ala
Thr Thr Ala Tyr	Phe Leu Tyr	Gln Gln Gln Gly	Arg Leu Asp Lys Leu
Thr Val Thr Ser	Gln Asn Leu	Gln Leu Glu Asn	Leu Arg Met Lys Leu
Pro Lys Pro	Pro Lys Pro	Val Ser Lys Met	Arg Met Ala Thr Pro Leu
Leu Met Gln	Ala Leu Pro	Met Gly Ala Leu	Pro Gln Gly Pro Met Gln
Asn Ala Thr	Lys Tyr Gly	Asn Met Thr	Glu Asp His Val Met His Leu
Leu Gln Asn	Ala Asp Pro	Leu Lys Val Tyr	Pro Pro Leu Lys Gly Ser
Phe Pro Glu	Asn Leu Thr	His Leu Lys	Asn Thr Met Glu Thr Ile Asp
Trp Lys Val	Phe Glu Ser	Trp Met His	His Trp Leu Leu Phe Glu Met
Ser Arg His	Ser Leu Glu	Gln Lys Pro	Thr Asp Gln Pro Pro Lys Val
Leu Thr Lys	Cys Gln Glu	Glu Val Ser	His Ile Pro Ala Val His Pro
Gly Ser Phe	Arg Pro Lys	Cys Asp Glu	Asn Gly Asn Tyr Leu Pro Leu
Gln Cys Tyr	Gly Ser Ile	Gly Tyr Cys	Trp Cys Val Phe Pro Asn Gly
Thr Glu Val	Pro Asn Thr	Arg Ser Arg	Gly His His Asn Cys Ser Glu
Ser Leu Glu	Leu Glu Asp	Pro Ser Ser	Gly Leu Gly Val Thr Lys Gln
Asp Leu Gly	Pro Val Pro	Met	

<210> 4
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 <212> PRT
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<220>
 <223> sequence preceding tetanus toxin fragment

<400> 4
 Met Gly His Gly His His His His His His His His His Ser Ser
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 Gly His Ile Glu Gly Arg His Ile
 20

<210> 5
 <211> 36
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> primer

<400> 5

cgctacactc cgaacgcggc gatcgattct ttcgtt 36

<210> 6
 <211> 24
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> primer

<400> 6
 agcggataac aatttcacac agga 24

<210> 7
 <211> 17
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> primer

<400> 7
 gtaaaacgac ggccagt 17

<210> 8
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 <213> Artificial Sequence

<220>
 <223> synthetic transferrin peptide

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 1 5 10 15
 Phe Cys Leu Phe Arg Lys Lys Lys
 20

<210> 9
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 <213> Artificial Sequence

<220>
 <223> cleavage fragment from synthetic transferrin
 peptide

<400> 9
 Gln Gln Gln His Leu Phe Gly Ser Asn
 1 5

<210> 10
 <211> 15
 <212> PRT
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<220>
 <223> cleavage fragment from synthetic transferrin
 peptide

<400> 10

Val Thr Asp Cys Ser Gly Asn Phe Cys Leu Phe Arg Lys Lys Lys
 1 5 10 15

<210> 11
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<400> 11
 Phe Cys Leu Phe Arg Lys Lys Lys
 1 5

<210> 12
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 Phe Cys Leu Phe Arg
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<210> 13
 <211> 16
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<400> 13
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<400> 14
 Phe Cys Leu Phe Arg
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<400> 15
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 1 5 10

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<213> Homo sapiens

<400> 16

Gln Gln Gln His Leu Phe Gly Ser Asn
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<210> 17

<211> 210

<212> PRT

<213> Homo sapiens

<400> 17

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Leu	Gly	Arg	Arg	Pro	Gly	Ala	Pro	Glu	Ser	Lys	Cys	Ser	Arg	Gly	Ala
			20					25					30		
Leu	Tyr	Thr	Gly	Phe	Ser	Ile	Leu	Val	Thr	Leu	Leu	Leu	Ala	Gly	Gln
		35					40					45			
Ala	Thr	Thr	Ala	Tyr	Phe	Gln	Gln	Gln	Gly	Arg	Leu	Asp	Lys	Leu	Thr
	50					55					60				
Val	Thr	Ser	Gln	Asn	Leu	Gln	Leu	Glu	Asn	Leu	Arg	Met	Lys	Leu	Pro
65				70					75						80
Lys	Pro	Pro	Lys	Pro	Val	Ser	Lys	Met	Arg	Met	Ala	Thr	Pro	Leu	Leu
			85						90					95	
Met	Gln	Ala	Leu	Pro	Met	Gly	Ala	Leu	Pro	Gln	Gly	Gln	Asn	Ala	Thr
			100					105					110		
Lys	Tyr	Gly	Asn	Met	Thr	Glu	Asp	His	Val	Met	His	Leu	Leu	Gln	Asn
		115					120					125			
Ala	Asp	Pro	Leu	Lys	Val	Tyr	Pro	Pro	Leu	Lys	Gly	Ser	Phe	Pro	Glu
	130					135					140				
Asn	Leu	Thr	His	Leu	Lys	Asn	Thr	Met	Glu	Thr	Ile	Asp	Trp	Lys	Val
145				150					155						160
Phe	Glu	Met	His	His	Trp	Leu	Leu	Phe	Glu	Met	Ser	Arg	His	Ser	Leu
			165						170					175	
Glu	Gln	Lys	Pro	Thr	Asp	Ala	Pro	Pro	Lys	Glu	Ser	Leu	Glu	Leu	Glu
			180					185					190		
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Pro	Met														
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<210> 18

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<212> PRT

<213> Clostridium tetani

<400> 18

Arg His Ile Asp Asn Glu Glu Asp Ile Asp
1 5 10

<210> 19

<211> 10

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<213> Clostridium tetani

<400> 19

Tyr Thr Pro Asn Asn Glu Ile Asp Ser Phe
1 5 10

<210> 20
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 <213> Clostridium tetani

<400> 20
 Gly Asn Ala Phe Asn Asn Leu Asp Arg Ile
 1 5 10

<210> 21
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 <213> Unknown

<220>
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<210> 22
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<400> 22
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<210> 23
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<400> 23
 Gly Thr Ser Val Asn Val His Ser Ser Leu
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<400> 24
 Gly Asn Gly Met Asn Ala Trp Val Ala Trp
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<400> 25
 His Gly Leu Asp Asn Tyr Arg Gly Tyr Ser

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Ile Leu Gln Ile Asn Ser Arg Trp Trp Cys
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<400> 27
Val Ser Asp Gly Asn Gly Met Asn Ala Trp
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Arg Trp Trp Cys Asn Asp Gly Arg Thr Pro
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<400> 29
Val Ala Trp Arg Asn Arg Cys Lys Gly Thr
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<400> 30
Leu Phe Gly Ser Asn Val Thr Asp Cys Ser
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Asp Cys Ser Gly Asn Phe Cys Leu Phe Arg
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 Lys Gly Ile Gly Ser Gly Lys Val Leu Lys Ser Gly Pro Gln Cys
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<210> 33
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<220>
 <223> peptide sequence control for a competitive inhibitor of AEP

<400> 33
 Ala Glu Gln Lys
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<210> 34
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<400> 34
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<400> 35
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<210> 36
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<400> 36
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 1 5

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<400> 37

Asn Leu Arg Met Lys
1 5

<210> 38

<211> 19

<212> PRT

<213> Homo sapiens

<400> 38

Cys Val Phe Pro Asn Gly Thr Glu Val Pro Asn Thr Arg Ser Arg Gly
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His His Asn

<210> 39

<211> 19

<212> PRT

<213> Homo sapiens

<400> 39

Ala Thr Lys Tyr Gly Asn Met Thr Gly Asp His Val Met His Leu Leu
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Gln Asn Ala